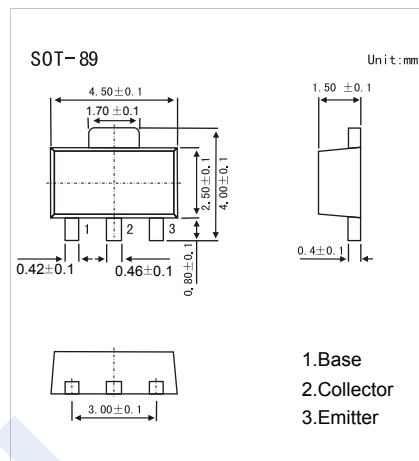


NPN Transistors

2SD1368

■ Features

- Low frequency power amplifier
- Complementary to 2SB1002

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	100	V
Collector - Emitter Voltage	V_{CE0}	50	
Emitter - Base Voltage	V_{EB0}	6	
Collector Current - Continuous	I_C	1	A
Collector Current - Pulse (Note.1)	I_{CP}	1.5	
Collector Power Dissipation	P_C	1	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to 150	

Note.1: $PW \leq 10 \text{ ms}$, Duty cycle $\leq 20\%$.

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CB0}	$I_C = 100 \mu\text{A}$, $I_E = 0$	100			V
Collector-emitter breakdown voltage	V_{CE0}	$I_C = 1 \text{ mA}$, $R_{BE} = \infty$	50			
Emitter - base breakdown voltage	V_{EB0}	$I_E = 100 \mu\text{A}$, $I_C = 0$	6			
Collector-base cut-off current	I_{CBO}	$V_{CB} = 80 \text{ V}$, $I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5 \text{ V}$, $I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 1 \text{ A}$, $I_B = 100 \text{ mA}$			0.3	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = 1 \text{ A}$, $I_B = 100 \text{ mA}$			1.2	
DC current gain	h_{FE}	$V_{CE} = 2 \text{ V}$, $I_C = 0.1 \text{ A}$	100		500	
Collector output capacitance	C_{ob}	$V_{CB} = 10 \text{ V}$, $I_E = 0$, $f = 1 \text{ MHz}$		20		pF
Transition frequency	f_T	$V_{CE} = 2 \text{ V}$, $I_C = 10 \text{ mA}$		100		MHz

■ Classification of h_{FE}

Type	2SD1368-A	2SD1368-B	2SD1368-C
Range	100-200	160-320	250-500
Marking	CA	CB	CC

NPN Transistors

2SD1368

■ Typical Characteristics

